

Remarks

Applicants thank the Examiner for indicating that claims 9, 11, and 12 are allowed. Reconsideration of this Application as to the remaining claims is respectfully requested.

Upon entry of the foregoing amendment, claims 9, 11, 12, and 20-33 are pending in the application, with claims 9, 20, and 31 being the independent claims. Claims 20, 23-29, and 31 are sought to be amended. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider and withdraw all outstanding objections and rejections.

Provisional Double Patenting Rejection

Claims 20-32 were rejected in paragraph 5 of the Office Action under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 11-20 and 22-41 of copending application No. 09/722,497. Accordingly, Applicants will prepare and submit an appropriate Terminal Disclaimer upon a finding of allowability of claims 20-32.

Rejections under 35 U.S.C. § 112

Claims 20-32 were rejected in paragraph 7 of the Office Action under 35 U.S.C. § 112, second paragraph, as being indefinite because of the terms, "ligand-binding portion of the phospholamban cytosolic domain thereof", the "ligand-binding site of the phospholamban cytosolic domain of", "possesses good steric and electrostatic complementarity with the ligand binding site," and "interacts favorably with the ligand binding site". According to the Examiner

"It is not clear what amino acid sequence the ligand-binding portion has, and whether the ligand-binding portion is the same as the ligand-binding site; it is also not clear what interactions between the candidate

molecule and the ligand binding site are considered favorable or good steric and electrostatic complementarity."

(Office Actions, paragraph 7, pages 5 and 6). The Examiner noted that claims 21-30 and 32 are included in this rejection for being dependent on a rejected base claim.

Regarding amino acid sequences of the ligand-binding portion, amino acid sequences of a Phospholamban fragment is disclosed in the specification as SEQ. ID. NO. 9, and is described in the specification beginning at page 4, last paragraph. The detailed description describes the ligand-binding characteristics of the Phospholamban fragment in terms of, for example, binding sites S1, S2, S3, and S4. See the specification beginning at page 5, line 1. Thus, although the invention is not limited to these specific binding sites or ligand binding portion, it is respectfully submitted that the claims are not indefinite in view of the disclosure. Reconsideration and withdrawal of the rejection is requested.

Regarding ligand-binding portion and ligand-binding site, independent claim 20 has been amended to recite, among other features,

the ligand binding site is the site at which the phospholamban deactivator binds to the phospholamban cytosolic domain or to the ligand-binding portion of the phospholamban cytosolic domain when the phospholamban deactivator is bound to phospholamban;

Claims 25 and 31 have been similarly amended. These changes are believed to accommodate the Examiner's rejection. Reconsideration and withdrawal of the rejection is requested.

Regarding interactions, claim 20 has been amended to replace, "is capable of interacting," with, "computationally binds." The terms, "favorable," and "good" have been omitted. Similar changes have been made to claim 25. These changes are believed to accommodate the Examiner's rejections. Reconsideration and withdrawal of the rejection is requested.

Claim 27 was rejected in paragraph 7 of the Office Action under 35 U.S.C. § 112, second paragraph, as being indefinite because of the term, "derived from." Claim

27 has been amended by replacing "derived from" with "obtained from," as suggested by the Examiner. Reconsideration and withdrawal of the rejection is requested.

Conclusion

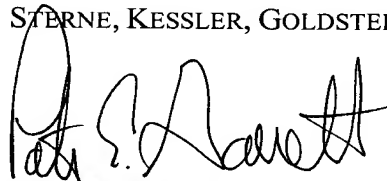
All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding objections and rejections and that they be withdrawn.

Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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